defining a number of time intervals, each represented by a fixed number of timing clock cycles of the service input signal;

determining a number of network clock cycles respectively within each of the time intervals;

determining a modulo 2^P value of each of the determined number of network clock cycles, wherein 2^P represents a range of tolerance in the timing clock of the service input signal; and

transmitting each of the determined modulo 2^P values at the end of each of the time intervals respectively.

34.   A method for representing a timing clock of a service input signal at a source node of a packet-based communications network including a network clock, the method comprising the steps of:

defining a number of time intervals each represented by a fixed number of timing clock cycles of the service input signal;

determining a number of network clock cycles respectively within each of the time intervals;

determining a modulo 2^P value of each of the determined number of network clock cycles, wherein 2^P represents a range of possible deviations in the

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number of network clock cycles within each of the time intervals; and

transmitting each of the determined modulo 2^P values at the end of each of the time intervals respectively.

35.   A method for recovering a timing clock of a service input signal at a destination node of a packet-based communications network including a network clock, the method comprising, the steps of:

receiving a residual time stamp that represents a modulo 2^P value of a number of network clock cycles in a time interval defined by a fixed number of timing clock cycles of the service input signal, wherein 2^P represents a range of tolerance in the timing clock of the service input signal;

determining, from the residual time stamp and the network clock cycles, the time interval; and

recovering the timing clock of the service input signal based on the determined time interval and the fixed number of timing clock cycles.

36.   A method for recovering a timing clock of a service input signal at a destination node of a packet-based communications network including a network clock, the method comprising the steps of:

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